REMARKS

Claims 1-4 and 6-10 are pending.

In Paragraph No. 2 of the Action, claims 1-4 and 6-10 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Aoai et al (EP 1243968).

Applicant submits that this rejection should be withdrawn because Aoai et al does not disclose or render obvious the positive resist composition of the present invention.

Even if a *prima facie* case of obviousness could be established based on Aoai et al, which it cannot, the evidence provided in the working Examples of the present specification shows that the resist composition of the invention provides unexpectedly superior results in comparison to Aoai et al. This evidence -- particularly a comparison of Example 1 to Comparative Example 1 -- confirms the patentability of the present invention over Aoai et al.

As seen in independent claim 1, the invention relates to a positive resist composition. The resist composition includes (A) a fluorine atom-containing resin and (B) a sulfonium salt compound. The fluorine atom-containing resin (A) includes at least one group that increases the solubility of the resin in an alkali developer by the action of an acid. The sulfonium salt compound (B) is represented by general formula (A) shown in claim 1, and this compound generates an acid upon irradiation with actinic rays or radiation.

The Examiner states that Aoai et al. disclose a positive resist composition comprising: (A) a resin capable of decomposing by the action of an acid to increase the solubility in an alkali developer; and (B) a compound capable of generating an acid upon irradiation with one of an actinic ray and a radiation, wherein the resin (A) contains a specified repeating unit having the

structure of formula (I) which allegedly meets the present claim limitations. Additionally, the Examiner says, the resist composition comprises a sulfonium photoacid generator meeting the structural limitations of the present formula (A), a nitrogen-containing basic compound, a dissolution inhibitor, and an F- or Si-containing surfactant.

Per the Examiner, the description of the basic formula for the sulfonium salt of Aoai et al. teaches that the three constituent groups are preferably alkyl or an aryl substituted by alkoxyl, hydroxyl, mercapto, or an alkyl group. The Examiner states that many of the exemplified compounds comprise three aryl groups, and there are some that include a combination of aryl substituted with hydroxyl, alkoxyl, and alkyl groups. The Examiner says to see compounds 4-11 to 4-16 of Aoai et al.

The Examiner reasons that it would have been obvious to prepare the material of Aoai et al. "given the teaching of the sulfonium salt of the reference, replace one aryl group of the tri aryl sulfonium salt with another exemplified aryl substituted with a hydroxyl group, and/or other groups with reasonable expectation of achieving a material capable of forming fine patterns."

As noted, Applicant submits that this rejection should be reconsidered and withdrawn.

As an initial matter, a *prima facie* case of obvious cannot be established based on Aoai et al. In this regard, Aoai et al. EP '968 does not contain any disclosure of a sulfonium salt compound of formula (A) in claim 1, contrary to what the Examiner states. While EP '968 does disclose several sulfonium salt compounds having a triphenyl sulfonium cation moiety, see specifically compounds PAG4-1 through PAG4-7 at pages 26-27 of EP '968, none of these compounds have a hydroxyl group on one of the phenyl rings. Further, there is nothing in EP

'968 which would suggest modifying the compounds of EP '968 just discussed to have a hydroxyl group.

Further, EP '968 does not in the working examples use any sulfonium salt compound which has a cation moiety containing a hydroxyl group, let alone a cation moiety which satisfies present formula (A). Rather, the working examples employ a nonaflate salt of triphenyl sulfonium (PAG4-3) shown at page 26 of EP '968.

The Examiner asserts that it would have been obvious to prepare the material of Aoai using one of the disclosed tri-aryl sulfonium salts, and to replace one aryl group of the salt with another exemplified aryl group substituted with a hydroxyl group, and/or other groups with a reasonable expectation of achieving a material capable of forming fine patterns. However, Applicant respectfully disagrees with the Examiner's position. The general formula pointed to by the Examiner is formula (PAG4) in Paragraph [0057] at page 21 of EP '968. The description of this formula in Paragraph [0059] of Aoai et al. '968 shows that this formula represents a very broad genus of compounds, which does not fairly teach or suggest the specific compounds employed in the present invention. Further, Applicant does not believe there is anything in EP '968 which would motivate a person of ordinary skill in the art to employ a hydroxyl group on one of the aryl groups of a triphenyl sulfonium salt. The only salts which are substituted with a hydroxyl group in EP '968 are not triphenyl sulfonium salts. See compounds (PAG4-10) - (PAG4-16) cited by the Examiner. If anything, the disclosure of hydroxyl group substituents only on compounds other than triphenylsulfonium salts would tend to lead a person of ordinary skill away from employing a hydroxyl group as a substituent on a triphenyl sulfonium salt.

Even if a *prima facie* case of obviousness could be established based on Aoai et al, which it cannot, the present invention provides unexpectedly superior results in comparison to Aoai et al. These results confirm the patentability of the presently claimed resist composition over Aoai et al.

Specifically, the triphenylsulfonium salt PAG4-3 shown at page 26 of Aoai et al and used in the working Examples of Aoai et al (see, e.g., Example 1 at Paragraph [0096] of Aoai et al), is used in the Comparative Example of the present invention. See Comparative Example 1 at the bottom of Table 1 at page 81 of the present specification, where PAG-A was employed as the acid generator. As shown in the last line on page 81, PAG-A is triphenylsulfonium nonafluorobutanesulfonate, which is same compound as PAG4-3 of Aoai et al.

The results in Table 2 at page 84 of the specification show that the compounds of the present invention provide superior results in terms of the number of development defects, when compared to the compound of Aoai et al. (that is, the compound used in the Comparative Example, which is Aoai et al.'s compound PAG 4-3). Specifically, while the sensitivities were the same for Example 1 and Comparative Example 1 (i.e., 8 mJ/cm^2), the number of development defects for Example 1 was only 56, whereas the number of development defects for Comparative Example 1 was 4800, almost two orders of magnitude higher. As discussed at page 85 of the specification, the positive resist composition of the invention shows satisfactory sensitivity and is less apt to cause development defects even when the acid generator according to the invention is used in combination with a water-repellent fluororesin.

The Examiner will kindly note that the Comparative Example in the present specification is even closer to the present invention than Example 1 of Aoai et al itself. Comparative Example

1, like Example 1, employed Resin (F-1) shown at page 78 of the present specification, rather than Resin (1) of Aoai et al. See Aoai et al's Example 1 beginning at paragraph [0096] of Aoai et al. Present Comparative Example 1, like present Example 1, employed the basic compound 2,6-diisopropylaniline, rather than the dicyclohexylmethylamine used in Aoai et al's Example 1. And present Comparative Example 1, like present Example 1, used the fluorine surfactant Megafac F176, rather than the Megafac R08 fluorine-containing surfactant used in Aoai et al's Example 1. The same solvent (propylene glycol methyl ether acetate) was used in each of present Example 1, present Comparative Example 1, and Example 1 of Aoai et al. Thus, Applicant has provided a comparison to an embodiment which is even closer to the present invention (i.e., the Comparative Example in the present specification) than the closest example of the prior art (i.e., Example 1 of Aoai et al.)

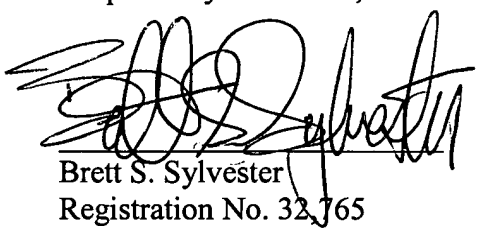
In sum, the present invention and Aoai et al are different and distinguished from each other, and the present invention is not obvious from the disclosure or teachings of Aoai et al.

The Examiner is respectfully requested to reconsider and withdraw the rejection of claims 1-4 and 6-10 based on Aoai et al EP '968.

Allowance is respectfully requested. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



Brett S. Sylvester
Registration No. 32,765

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE
23373
CUSTOMER NUMBER

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